

REMARKS

Claims 1, 3-16, 25-28 and 41-48 were pending in this application. By this amendment, new claims 49-52 are added, claims 1, 6, and 11 are amended, and claims 41-48 are canceled without prejudice. Applicants reserve the right to pursue the cancelled subject matter at a later time.

Support for amended claims 1, 6, and 11 (with regard to the terms *SEQ ID NO: 10, at a third codon, and a deletion of the two bases following the third codon*) can be found in the specification as filed at least at the following places: page 6, line 1 and page 25, lines 17-19. Support for amended claims 1, 6, and 11 (with regard to the phrase *residues 1 through 1801*) can be found in the specification as originally filed at page 25, lines 17-19; page 27, lines 18-28; page 28, lines 20-25; and in Table 3 in combination with the sequence listing. Table 3 indicates that the *iaaM* transgene is 1799 base pairs in length. Since the transgene (*iaaM* stop) contains a deletion of the two bases following the third codon, one of ordinary skill would readily recognize that the nucleic acid sequence from which the transgene is derived must be 1801 base pairs in length, thereby encompassing residues 1 through 1801 of SEQ ID NO: 10.

Support for new claim 49 can be found in the specification at least at page 22, lines 24-28. Support for new claim 50-52 can be found in the specification at least at page 6, line 1, and at page 25, lines 9-19

No new matter has been added by these amendments. Unless specifically stated otherwise, none of these amendments are intended to limit the scope of any claim.

Advisory Action

Applicants acknowledge the Examiner's comments in the Advisory action dated July 9, 2003. It is believed that all of the issues raised by the examiner in the Advisory action are addressed fully herein.

Telephone Interview

Applicants thank Examiner Baum for the courtesy of a telephone interview with their representative, Dr. Anne Carlson, on July 7, 2003. During the telephone interview, the claim rejections under § 112 were discussed, and it is believed that this response is in accordance with the Examiner's recommendations.

Preliminary Amendment Regarding Governmental Support

Applicants note that the final Office action, dated March 3, 2003, does not reference the Preliminary Amendment regarding "Governmental Support" that was filed on August 12, 2002. Applicants respectfully request that in the next Office communication the Examiner indicate that he has received this Preliminary Amendment, and that it has properly been made of record in the file.

Supplemental Information Disclosure Statement (IDS)

Applicants note that the final Office action, dated March 3, 2003, does not include a reference to the Supplemental IDS that was filed on January 28, 2003. Applicants respectfully request that the Examiner indicate that he has received the Supplemental IDS and the associated references by sending us a signed copy of the PTO-1449 form with the next Office communication.

Withdrawal of Newly Submitted Claims 44 and 48:

The Examiner has withdrawn newly submitted claims 44 and 48 as they are allegedly directed to a non-elected invention (SEQ ID NO: 7). Applicants respectfully disagree with the Examiner. However, in the interest of advancing prosecution, Applicants request cancellation of claims 44 and 48 herein.

Claims 41-43, and 45-47:

In the interest of advancing prosecution of this application, Applicants request cancellation of claims 41-43 and 45-47, thus rendering moot all rejections of these claims. Specific rejections of these claims will therefore not be addressed further.

Claim rejections under 35 U.S.C §112, Second Paragraph:

Claims 1, 6, 11, 43, and 47 are rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants traverse this rejection.

In the interest of advancing prosecution, Applicants have amended claims 1, 6, and 11 to remove the phrase “at least 90% homologous.” Applicants believe that additional amendments to claims 1, 6, and 11, discussed throughout this amendment, remove the indefinite article “a.” Applicants respectfully request that this rejection of claims 1, 6, and 11 be withdrawn since the language that the Examiner believes is indefinite is removed.

Claim rejections under 35 U.S.C §112, First Paragraph:

Written Description

Claims 1, 3-16, 25-28, 41-43, and 45-47 are rejected under 35 U.S.C. §112, first paragraph for allegedly containing subject matter that was not adequately described in the specification. Applicants traverse this rejection.

Claims 1, 3-16, and 25-28 are rejected as allegedly being unclear as to how many sequences Applicants are claiming and what the length of the claimed sequences is. Applicants respectfully disagree with the Examiner. However, in the interest of advancing prosecution, Applicants have amended claims 1, 6, and 11 to more clearly define their invention. Specifically, claims 1, 6, and 11 have been amended to recite one specific nucleic acid sequence that was used to form a double-stranded RNA molecule capable of silencing the *iaaM* gene of *Agrobacterium* (the nucleic acid sequence as set forth in residues 1 through 1801 of SEQ ID NO: 10). Table 3 in the specification (see page 29) indicates that the *iaaM* transgene is 1799 base pairs in length. Since the transgene (*iaaM* stop) contains a deletion of the two bases following the third codon, one of ordinary skill would recognize that the nucleic acid sequence from which the transgene is derived must be 1801 base pairs in length, thereby encompassing residues 1 through 1801 of SEQ ID NO: 10. Claims 3, 4, 5, 7-10, 12-6, and 25-28 depend, either directly or indirectly from claims 1, 6, or 11 and thereby incorporate the amendment; Applicants request that this rejection of claims 1, 6, and 11, and all claims depending

therefrom, be withdrawn.

Enablement

Claims 1, 3-16, 25-28, 41-43, and 45-47 are rejected under 35 U.S.C. §112, first paragraph for allegedly lacking enablement. Applicants traverse this rejection.

As described above, claims 1, 6, and 11 have been amended to more clearly define the invention. Claims 1, 6, and 11 have been further amended to recite that the nucleic acid sequence having a sequence as set forth in residues 1 through 1801 of SEQ ID NO: 10 comprises a stop sequence at a third codon and a deletion of the two bases following the third codon. Based on the Examiner's statement in the Office action at page 4, line 15 through page 5, line 2, the specification is "... enabling for claims limited to an isolated *iaaM* nucleic acid molecule of SEQ ID NO: 10 ... wherein the *iaaM* nucleic acid oncogene was modified by changing the third codon to a stop codon and introducing a frameshift mutation downstream of the introduced stop codon ... to obtain plants that are resistant to *Agrobacterium* infection ...". Claims 1, 6, and 11 are now directed to such constructs, and thus are enabled. Claims 3, 4, 5, 7-10, 12-6, and 25-28 depend, either directly or indirectly from claims 1, 6, or 11 and thereby incorporate the amendment. Applicants respectfully request that this rejection of claims 1, 6, and 11, and all claims depending therefrom, be withdrawn.

Claim rejections under 35 U.S.C §103(a):

Claims 1-14 and 16 are rejected as allegedly rendered obvious by Hiroyasu *et al.* (Kokai Number (1993) 69574) in light of Hartmann *et al.* (1983, Plant Propagation, 4th edition, Prentice Hall, Inc., Englewood Cliffs, pages 345-349, and 351-358). Applicants traverse this rejection.

Applicants note that in addition to Hiroyasu *et al.* (Kokai Number (1993) 69574), the Office action refers to a Hiroyasu *et al.* peer-reviewed article (Office action, section 9, page 7, line 3). Applicants are only aware of the published, non-examined, non-issued, patent application of Hiroyasu *et al.*, and believe that the Office action is referring to this application throughout section 9. Applicants will respond to the Examiner's rejection based on that belief. However, if this is not the case, Applicants respectfully request that the Examiner provide them with a copy of the Hiroyasu *et al.*

peer-reviewed article.

As described above, Applicants have amended claims 1, 6, and 11 to more clearly define the claimed invention. Specifically, independent claims 1, 6, and 11 now recite that the nucleic acid molecule has a sequence as set forth in residues 1 through 1801 of SEQ ID NO: 10, but wherein the nucleic acid molecule comprises a stop sequence at a third codon and a deletion of two nucleotides following the third codon, and wherein the nucleic acid sequence encodes a double-stranded RNA molecule capable of silencing the *iaaM* gene of *Agrobacterium*. Since all of the limitations in the amended claims are not taught individually or by the combination of Hiroyasu *et al.* and Hartmann *et al.*, this combination of references does not and cannot render obvious the subject matter of independent claims 1, 6, and 11, or all claims depending therefrom. Applicants respectfully request that this rejection of these claims be withdrawn.

New claims 49-52:

Applicants have added new claim 49 directed to a recombinant nucleic acid having a nucleic acid sequence operably linked 5' to a 35S CaMV promoter and 3' to a NOS promoter. New claim 49 has been drafted in accord with the language of the Office action at page 4, section 8, where the Examiner states that the specification is enabling for claims limited to "... an isolated *iaaM* nucleic acid molecule of SEQ ID NO: 10 operably linked 5' to a 35S CaMV promoter and operably linked 3' to a NOS promoter wherein the two promoters produce RNA molecules that anneal with each other to produce a double stranded RNA molecule ...". Support for this also can be found in the specification at least at page 22, lines 24-28.

New claims 50 and 51 are directed to methods of producing a plant cell resistant to gall disease, including transforming a plant cell with a nucleic acid molecule having a sequence as set forth in SEQ ID NO: 10, a stop sequence at a third codon and a deletion of two bases following the third codon. New claim 52 is directed to a recombinant nucleic acid having a nucleic acid sequence as set forth in SEQ ID NO: 10, a stop sequence at a third codon and a deletion of two bases following the third codon. New claims 50-52 were drafted in accord with the language of the Office action at page 4, line 15 through page 5, line 2, where the Examiner states that the specification is "... enabling for claims

limited to an isolated *iaaM* nucleic acid molecule of SEQ ID NO: 10 . . . wherein the *iaaM* nucleic acid oncogene was modified by changing the third codon to a stop codon and introducing a frameshift mutation downstream of the introduced stop codon . . . to obtain plants that are resistant to *Agrobacterium* infection . . .” Support for these claims can also be found in the specification at least at page 6, line 1, and at page 25, lines 9-19.

CONCLUSION

Based on the foregoing amendments and arguments, the present claims are in a condition for allowance. Applicants respectfully request that a timely Notice of Allowance be issued in this case. If for any reason the Examiner believes that a telephone conference would expedite allowance of the claims, please telephone the undersigned at (503) 226-7391.

Respectfully submitted,

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